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OM protein - protein search, using sw model

Run on: February 11, 2003, 19:46:30 ; Search time 134.543 Seconds  
(without alignments)  
2118.076 Million cell updates/sec

Title: US-09-497-967-6

Perfect score: 2342

Sequence: 1 MKYNILLIILISFELRA.....STTFKFLISILLFISFYLL 442

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 4569144 seqs, 644733110 residues

Total number of hits satisfying chosen parameters: 4569144

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Pending\_Patents\_AA\_Main:\*

- 1: /cgn2\_6/ptodata/1/paa/US05\_COMB.pep.\*
- 2: /cgn2\_6/ptodata/1/paa/US06\_COMB.pep.\*
- 3: /cgn2\_6/ptodata/1/paa/US07\_COMB.pep.\*
- 4: /cgn2\_6/ptodata/1/paa/US080\_COMB.pep.\*
- 5: /cgn2\_6/ptodata/1/paa/US081\_COMB.pep.\*
- 6: /cgn2\_6/ptodata/1/paa/US082\_COMB.pep.\*
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- 8: /cgn2\_6/ptodata/1/paa/US084\_COMB.pep.\*
- 9: /cgn2\_6/ptodata/1/paa/US085\_COMB.pep.\*
- 10: /cgn2\_6/ptodata/1/paa/US086\_COMB.pep.\*
- 11: /cgn2\_6/ptodata/1/paa/US087\_COMB.pep.\*
- 12: /cgn2\_6/ptodata/1/paa/US088\_COMB.pep.\*
- 13: /cgn2\_6/ptodata/1/paa/US089\_COMB.pep.\*
- 14: /cgn2\_6/ptodata/1/paa/US090\_COMB.pep.\*
- 15: /cgn2\_6/ptodata/1/paa/US091\_COMB.pep.\*
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- 20: /cgn2\_6/ptodata/1/paa/US096\_COMB.pep.\*
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- 22: /cgn2\_6/ptodata/1/paa/US098\_COMB.pep.\*
- 23: /cgn2\_6/ptodata/1/paa/US099\_COMB.pep.\*
- 24: /cgn2\_6/ptodata/1/paa/US100\_COMB.pep.\*
- 25: /cgn2\_6/ptodata/1/paa/US101\_COMB.pep.\*
- 26: /cgn2\_6/ptodata/1/paa/US102\_COMB.pep.\*
- 27: /cgn2\_6/ptodata/1/paa/US60\_COMB.pep.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	2342	100.0	442	18	US-09-497-967-6
2	2342	100.0	442	18	US-09-498-612-5
3	2188	93.4	409	18	US-09-497-967-61
4	2174	92.8	414	3	US-07-763-352A-15
5	1952.5	83.4	375	3	US-07-763-352A-3
6	921	39.3	468	18	US-09-497-967-7
					Sequence 6, Appli
					Sequence 5, Appli
					Sequence 61, Appl
					Sequence 15, Appl
					Sequence 3, Appli
					Sequence 7, Appli

7	921	39.3	468	18	US-09-498-612-6	Sequence 6, Appli
8	914	39.0	468	18	US-09-497-967-54	Sequence 54, Appl
9	558	23.8	105	15	US-09-196-161D-1	Sequence 1, Appli
10	544	23.2	105	15	US-09-196-161D-10	Sequence 10, Appl
11	475	20.3	89	18	US-09-497-967-9	Sequence 9, Appli
12	472	20.2	89	18	US-09-497-967-8	Sequence 10, Appl
13	451	19.3	83	18	US-09-497-967-12	Sequence 8, Appli
14	379	16.2	72	18	US-09-497-967-11	Sequence 12, Appl
15	376	16.1	69	18	US-09-497-967-11	Sequence 11, Appl
16	268.5	11.5	2176	25	US-10-176-912-511	Sequence 511, App
17	268.5	11.5	2176	25	US-10-179-524-511	Sequence 511, App
18	268.5	11.5	2176	25	US-10-184-634-511	Sequence 511, App
19	268.5	11.5	2176	25	US-10-184-644-511	Sequence 511, App
20	267	11.4	2336	25	US-10-123-155-383	Sequence 383, App
21	267	11.4	2336	25	US-10-137-871-383	Sequence 383, App
22	267	11.4	2336	25	US-10-140-472-383	Sequence 383, App
23	267	11.4	2336	25	US-10-140-805-383	Sequence 383, App
24	267	11.4	2336	25	US-10-140-864-383	Sequence 383, App
25	267	11.4	2336	25	US-10-140-923-383	Sequence 383, App
26	267	11.4	2336	25	US-10-141-759-383	Sequence 383, App
27	267	11.4	2336	25	US-10-141-759-383	Sequence 383, App
28	267	11.4	2336	25	US-10-141-751-383	Sequence 383, App
29	267	11.4	2336	25	US-10-142-426-383	Sequence 383, App
30	267	11.4	2336	25	US-10-142-885-383	Sequence 383, App
31	267	11.4	2336	25	US-10-146-731-383	Sequence 383, App
32	267	11.4	2336	25	US-10-158-790-383	Sequence 383, App
33	265	11.3	2571	24	US-10-063-685-39	Sequence 39, Appl
34	265	11.3	2571	24	US-10-063-685-39	Sequence 39, Appl
35	265	11.3	2571	25	US-10-176-912-165	Sequence 165, App
36	265	11.3	2571	25	US-10-179-524-165	Sequence 165, App
37	265	11.3	2571	25	US-10-184-634-165	Sequence 165, App
38	265	11.3	2571	25	US-10-184-644-165	Sequence 165, App
39	261	11.1	1328	25	US-10-123-155-157	Sequence 157, App
40	261	11.1	1328	25	US-10-137-871-157	Sequence 157, App
41	261	11.1	1328	25	US-10-140-472-157	Sequence 157, App
42	261	11.1	1328	25	US-10-140-805-157	Sequence 157, App
43	261	11.1	1328	25	US-10-140-864-157	Sequence 157, App
44	261	11.1	1328	25	US-10-140-923-157	Sequence 157, App
45	261	11.1	1328	25	US-10-141-756-157	Sequence 157, App

## ALIGNMENTS

RESULT 1  
US-09-497-967-6  
Sequence 6, Application US/09497967  
GENERAL INFORMATION:  
APPLICANT: Clark, Theodore G.  
APPLICANT: Dickerson, Jr., Harry W.  
APPLICANT: Lin, Tian-Long  
TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF  
TITLE OF INVENTION: ICHTHYOPHTHRIRIUS  
FILE REFERENCE: 235.00170101  
CURRENT FILING DATE: 2000-02-04  
PRIOR FILING DATE: 2000-02-04  
PRIOR FILING DATE: 1999-04-27  
PRIOR FILING DATE: 1999-04-27  
PRIOR FILING DATE: 1999-02-04  
PRIOR FILING DATE: 1999-02-04  
PRIOR FILING DATE: 1999-03-02  
PRIOR FILING DATE: 1999-03-02  
PRIOR FILING DATE: 1999-03-17  
NUMBER OF SEQ ID NOS: 102  
SOFTWARE: PatentIn ver. 2.1  
SEQ ID NO 6  
LENGTH: 442  
TYPE: PRT  
ORGANISM: Ichthyophthirius multifiliis  
US-09-497-967-6

Query Match

100.0% Score 2342; DB 18; Length 442;

	Best Local Similarity	100.0%;	Pred. No. 2.1e-193;			
	Matches	442;	Conservative	0;	Mismatches	0; Indels
	Gaps					0;
Dy	1	MKNYILLIISLFINELRAVPCPDGTQTQAGLTVDGAADLGTCVNCRPNFYNGGAAQG	60			
Dd	1	MKNYILLIISLFINELRAVPCPDGTQTQAGLTVDGAADLGTCVNCRPNFYNGGAAQG	60			
Dy	61	EANGNQPFANNAARGICVPCQINRVGSVTNAGDLATLATQCSTQCPTGTALDDGVTDVF	120			
Dd	61	EANGNQPFANNAARGICVPCQINRVGSVTNAGDLATLATQCSTQCPTGTALDDGVTDVF	120			
Dy	121	DRSAAQCCKPKNFYNYNGSGPOGEAPGVQVFAAGAAAGVAAVTSQCVPCQLNKNDSPAT	180			
Dd	121	DRSAAQCCKPKNFYNYNGSGPOGEAPGVQVFAAGAAAGVAAVTSQCVPCQLNKNDSPAT	180			
Dy	181	AGAQNATATCSCNOCPGTGVLDDGTVTLFNTSATLCVKCRPNFYNGSGPOGEAPGVQVF	240			
Dd	181	AGAQNATATCSCNOCPGTGVLDDGTVTLFNTSATLCVKCRPNFYNGSGPOGEAPGVQVF	240			
Dy	241	AAGAAAAGVAAVTSQCVPCQINKNDSPATAGAACNLATCCSTQCPTGTATIQDGVTLVFSN	300			
Dd	241	AAGAAAAGVAAVTSQCVPCQINKNDSPATAGAACNLATCCSTQCPTGTATIQDGVTLVFSN	300			
Dy	301	SSTQCSQCIANYFFNGNFEGAKSQCLKCPVSKTTPAHAPGNATATQAOTCLTTCAGTVLD	360			
Dd	301	SSTQCSQCIANYFFNGNFEGAKSQCLKCPVSKTTPAHAPGNATATQAOTCLTTCAGTVLD	360			
Dy	361	DGTSTNFMASATECTKCSAGFFASKTTGGTAGTDCTECTKKLSGATAKYAATOKVQ	420			
Dd	361	DGTSTNFMASATECTKCSAGFFASKTTGGTAGTDCTECTKKLSGATAKYAATOKVQ	420			
Dy	421	CASITFAKFLSILSLIFSYLL	442			
Dd	421	CASITFAKFLSILSLIFSYLL	442			
	RESULT 2					
	US-09-498-612-5					
	; Sequence 5, Application US/09498612					
	; GENERAL INFORMATION:					
	; APPLICANT: GAERTIG, Jacek					
	; APPLICANT: DICKERSON Jr., Harry W.					
	; APPLICANT: CLARK, Theodore G.					
	; APPLICANT: THE UNIVERSITY OF GEORGIA RESEARCH FOUNDATION, INC					
	; TITLE OF INVENTION: RECOMBINANT EXPRESSION OF HETEROLOGOUS NUCLEIC ACIDS IN					
	; FILE REFERENCE: 235.00100101					
	; CURRENT APPLICATION NUMBER: US/09/498,612					
	; CURRENT FILING DATE: 2000-02-04					
	; PRIOR APPLICATION NUMBER: 60/118,634					
	; PRIOR FILING DATE: 1999-02-04					
	; PRIOR APPLICATION NUMBER: 60/122,372					
	; PRIOR FILING DATE: 1999-03-02					
	; PRIOR APPLICATION NUMBER: 60/124,905					
	; PRIOR FILING DATE: 1999-03-17					
	; PRIOR APPLICATION NUMBER: 60/131,121					
	; PRIOR FILING DATE: 1999-04-27					
	; PRIOR APPLICATION NUMBER: PCT/US00/02966					
	; PRIOR FILING DATE: 2000-02-04					
	; NUMBER OF SEQ ID NOS: 14					
	; SOFTWARE: PatentIn Ver. 2.0					
	; SEQ ID NO 5					
	; LENGTH: 442					
	; TYPE: PRT					
	; ORGANISM: Ichthyophthirius multifiliis					
	US-09-498-612-5					
	Query Match	100.0%;	Score 2342;	DB 18;	Length 442;	
	Best Local Similarity	100.0%;	Pred. No. 2.1e-193;			
	Matches	442;	Conservative	0;	Mismatches	0; Indels
	Gaps					0;
Dy	1	MKNYILLIISLFINELRAVPCPDGTQTQAGLTVDGAADLGTCVNCRPNFYNGGAAQG	60			

Ddb	1	MYKYNILLILIISLFINELRAVPCPDGTQTQAGLTDVGAADLGTVCNCRPNFYNGGAAGQ	60
Qy	61	EAANGNOPFAANNAARGICVPCQINRVGSVTNAGDLATLATQCSTQCPTGTALDDGVTDVF	120
Ddb	61	EAANGNOPFAANNAARGICVPCQINRVGSVTNAGDLATLATQCSTQCPTGTALDDGVTDVF	120
Qy	121	DRSAAQCVKCKPNFYNGSGPOGEAPGVQVTFAGAAAGVAAVTSQCVPCQLNKNDSPAT	180
Ddb	121	DRSAAQCVKCKPNFYNGSGPOGEAPGVQVTFAGAAAGVAAVTSQCVPCQLNKNDSPAT	180
Qy	181	AGAQNATLQCSNOCPTGTGVLDGVTLVFNTSATLCKVKCRPNFYNGSGPOGEAPGVQV	240
Ddb	181	AGAQNATLQCSNOCPTGTGVLDGVTLVFNTSATLCKVKCRPNFYNGSGPOGEAPGVQV	240
Qy	241	AAGAAAAGVAAVTSQCVPCQINKNDSPATAGAAQANLATQCSQCTPGTATIQDGVTLVFSN	300
Ddb	241	AAGAAAAGVAAVTSQCVPCQINKNDSPATAGAAQANLATQCSQCTPGTATIQDGVTLVFSN	300
Qy	301	SSTQCSQCIANYFNGNFAGKSQCLKCPVSKTTPAHAPGNWTAQTQCLTTCPCAGTVLD	360
Ddb	301	SSTQCSQCIANYFNGNFAGKSQCLKCPVSKTTPAHAPGNWTAQTQCLTTCPCAGTVLD	360
Qy	361	DGTSTNFMASATECKCSAGFFASKTGTGTAGTDTCTECTKKLSGATAKYYAEATQKVQ	420
Ddb	361	DGTSTNFMASATECKCSAGFFASKTGTGTAGTDTCTECTKKLSGATAKYYAEATQKVQ	420
Qy	421	CASTTFAKFLSILFLFSFYLL	442
Ddb	421	CASTTFAKFLSILFLFSFYLL	442
RESULT 3			
US-09-497-967-61			
; Sequence 61, Application US/09497967			
; GENERAL INFORMATION:			
; APPLICANT: Clark, Theodore G.			
; APPLICANT: Dickerson, Jr., Harry W.			
; APPLICANT: Lin, Tian-Long			
; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF			
; TITLE OF INVENTION: ICHTHYOPHTHIRIUS			
; FILE REFERENCE: 235.00170101			
; CURRENT APPLICATION NUMBER: US/09/497,967			
; CURRENT FILING DATE: 2000-02-04			
; PRIOR APPLICATION NUMBER: 60/131,121			
; PRIOR FILING DATE: 1999-04-27			
; PRIOR APPLICATION NUMBER: 60/118,634			
; PRIOR FILING DATE: 1999-02-04			
; PRIOR APPLICATION NUMBER: 60/122,372			
; PRIOR FILING DATE: 1999-03-02			
; PRIOR APPLICATION NUMBER: 60/124,905			
; PRIOR FILING DATE: 1999-03-17			
; NUMBER OF SEQ ID NOS: 102			
; SOFTWARE: PatentIn Ver. 2.1			
; SEQ ID NO 61			
; LENGTH: 409			
; TYPE: PRT			
; ORGANISM: Ichthyophthirius multifiliis			
US-09-497-967-61			
Query Match 93.4%; Score 2188; D3 18; Length 409;			
Best Local Similarity 100.0%; Pred. No. 3.9e-180;			
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps			
Qy	20	AVPCPDGTQTQAGLTDVGAADLGTVCNCRPNFYNGGAAGNOPFAANNAARGICV	79
Ddb	1	AVPCPDGTQTQAGLTDVGAADLGTVCNCRPNFYNGGAAGNOPFAANNAARGICV	60
Qy	80	PCQINRVGSVTNAGDLATLATQCSTQCPTGTALDDGVTDVDRSAAQCVKCKPNFYNGG	139
Ddb	61	PCQINRVGSVTNAGDLATLATQCSTQCPTGTALDDGVTDVDRSAAQCVKCKPNFYNGG	120
Qy	140	SPOGEAPGVQVTFAGAAAGVAAVTSQCVPCQLNKNDSPATAGAAQANLATQCSNOCPTGT	199

Db 121 SPQGEAPGVQVFAAGAAAGVAAVTSQCVCQLNKNDSPATAGAANLATQCSNQCPTGT 180  
QY 200 VLDGVTLVFNTSATLCVKCRPNFYNGGSPQGEAPGVQVFAAGAAAGVAAVTSQCVCPC 259  
Db 181 VLDGVTLVFNTSATLCVKCRPNFYNGGSPQGEAPGVQVFAAGAAAGVAAVTSQCVCPC 240  
QY 260 QINKNDSPATAGAANLATQCSQCPTGTATQDGVTLVFSNSTQCSQCIANYFFNGNFE 319  
Db 241 QINKNDSPATAGAANLATQCSQCPTGTATQDGVTLVFSNSTQCSQCIANYFFNGNFE 300  
QY 320 AGKSQCLKCPVSKTTPAHAPGNATQATQCLTTCPCAGTVLDDGTSNFFVASATECTKCSA 379  
Db 301 AGKSQCLKCPVSKTTPAHAPGNATQATQCLTTCPCAGTVLDDGTSNFFVASATECTKCSA 360  
QY 380 GFFASKTTGTFAGTDTCTECKLTSKATAKVYAEATQKVQCASSTTFK 428  
Db 361 GFFASKTTGTFAGTDTCTECKLTSKATAKVYAEATQKVQCASSTTFK 409

RESULT 4  
US-07-763-352A-15  
: Sequence 15, Application US/07763352A  
: GENERAL INFORMATION:  
: APPLICANT: Clark, Theodore G.  
: APPLICANT: Dickerson, Harry W.  
: TITLE OF INVENTION: ICH IMMOBILIZATION ANTIGEN AND FISH  
: TITLE OF INVENTION: VACCINE  
: NUMBER OF SEQUENCES: 15  
: CORRESPONDENCE ADDRESS:  
: ADDRESSEE: Greenlee and Winner  
: STREET: 5370 Manhattan Circle, Ste. 201  
: CITY: Boulder  
: STATE: Colorado  
: COUNTRY: USA  
: ZIP: 80303  
: COMPUTER READABLE FORM:  
: MEDIUM TYPE: Floppy disk  
: COMPUTER: IBM PC compatible  
: OPERATING SYSTEM: PC-DOS/MS-DOS  
: SOFTWARE: PatentIn Release #1.0, Version #1.25  
: CURRENT APPLICATION DATA:  
: APPLICATION NUMBER: US/07/763.352A  
: FILING DATE: 19910920  
: CLASSIFICATION: 435  
: ATTORNEY/AGENT INFORMATION:  
: NAME: Ferber, Donna M.  
: REGISTRATION NUMBER: 33,878  
: REFERENCE/DOCKET NUMBER: 15-91  
: TELECOMMUNICATION INFORMATION:  
: TELEPHONE: 303/499-8080  
: TELEFAX: 303/499-8089  
: TELEX: 823189  
: INFORMATION FOR SEQ ID NO: 15:  
: SEQUENCE CHARACTERISTICS:  
: LENGTH: 414 amino acids  
: TYPE: AMINO ACID  
: TOPOLOGY: linear  
: MOLECULE TYPE: protein  
US-07-763-352A-15

Query Match 92.8%; Score 2174; DB 3; Length 414;  
Best Local Similarity 99.5%; Pred. No. 6.4e-179;  
Matches 407; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
QY 1 MYNILLILISLFINELRAVPCPDGTQAGLTDVGAADLGTVCNCRPNFYNGGAAQ 60  
Db 1 MYNILLILISLFINELRAVPCPDGTQAGLTDVGAADLGTVCNCRPNFYNGGAAQ 60  
QY 61 EANGNQPAANNAARGICVPCQINRVGSVTNAGDLATLATQCSQCPTGTALDDGVTVDF 120  
Db 61 EANGNQPAANNAARGICVPCQINRVGSVTNAGDLATLATQCSQCPTGTALDDGVTVDF 120  
QY 121 DRSAACQVKCKPNFYNGGSPQGEAPGVQVFAAGAAAGVAAVTSQCVCQLNKNDSPAT 180

Db 121 DRSAACQVKCKPNFYNGGSPQGEAPGVQVFAAGAAAGVAAVTSQCVCQLNKNDSPAT 180  
QY 181 AGAANLATQCSNQCPTGTVLDGVTLVFNTSATLCVKCRPNFYNGGSPQGEAPGVQV 240  
Db 181 AGAANLATQCSNQCPTGTVLDGVTLVFNTSATLCVKCRPNFYNGGSPQGEAPGVQV 240  
QY 241 AAGAAAAGVAAVTSQCVCPCQINKNDSPTAGAAANLATQCSQCPTGTATQDGVTLVFSN 300  
Db 241 AAGAAAAGVAAVTSQCVCPCQINKNDSPTAGAAANLATQCSQCPTGTATQDGVTLVFSN 300  
QY 301 SSTQCSQCIANYFFNGNFEAGKSQCLKCPVSKTTPAHAPGNATQATQCLTTCPCAGTVLD 360  
Db 301 SSTQCSQCIANYFFNGNFEAGKSQCLKCPVSKTTPAHAPGNATQATQCLTTCPCAGTVLD 360  
QY 361 DGTSTNEVASATECTKCSAGFFASKTTGTFAGTDTCTECKLTSKAT 409  
Db 361 DGTSTNEVASATECTKCSAGFFASKTTGTFAGTDTCTECKLTSKAT 409

RESULT 5  
US-07-763-352A-3  
: Sequence 3, Application US/07763352A  
: GENERAL INFORMATION:  
: APPLICANT: Clark, Theodore G.  
: APPLICANT: Dickerson, Harry W.  
: TITLE OF INVENTION: ICH IMMOBILIZATION ANTIGEN AND FISH  
: TITLE OF INVENTION: VACCINE  
: NUMBER OF SEQUENCES: 15  
: CORRESPONDENCE ADDRESS:  
: ADDRESSEE: Greenlee and Winner  
: STREET: 5370 Manhattan Circle, Ste. 201  
: CITY: Boulder  
: STATE: Colorado  
: COUNTRY: USA  
: ZIP: 80303  
: COMPUTER READABLE FORM:  
: MEDIUM TYPE: Floppy disk  
: COMPUTER: IBM PC compatible  
: OPERATING SYSTEM: PC-DOS/MS-DOS  
: SOFTWARE: PatentIn Release #1.0, Version #1.25  
: CURRENT APPLICATION DATA:  
: APPLICATION NUMBER: US/07/763.352A  
: FILING DATE: 19910920  
: CLASSIFICATION: 435  
: ATTORNEY/AGENT INFORMATION:  
: NAME: Ferber, Donna M.  
: REGISTRATION NUMBER: 33,878  
: REFERENCE/DOCKET NUMBER: 15-91  
: TELECOMMUNICATION INFORMATION:  
: TELEPHONE: 303/499-8080  
: TELEFAX: 303/499-8089  
: TELEX: 823189  
: INFORMATION FOR SEQ ID NO: 3:  
: SEQUENCE CHARACTERISTICS:  
: LENGTH: 375 amino acids  
: TYPE: AMINO ACID  
: TOPOLOGY: linear  
: MOLECULE TYPE: protein  
US-07-763-352A-3

Query Match 83.4%; Score 1952.5; DB 3; Length 375;  
Best Local Similarity 93.4%; Pred. No. 7.9e-160;  
Matches 367; Conservative 1; Mismatches 2; Indels 23; Gaps 1;  
QY 17 ELRAVPCPDGTQAGLTDVGAADLGTVCNCRPNFYNGGAAQGANNGNPPFAANNAARG 76  
Db 1 EFRAPVPCPDGTQAGLTDVGAADLGTVCNCRPNFYNGGAAQGANNGNPPFAANNAARG 60  
QY 77 ICVPCQINRVGSVTNAGDLATLATQCSQCPTGTALDDGVTVDFDRSAAQCVCKPNFY 136  
Db 61 ICVPCQINRVGSVTNAGDLATLATQCSQCPTGTALDDGVTVDFDRSAAQCVCKPNFY 120





```
; APPLICANT: LAM, Toong Jin
; APPLICANT: GONG, Zhiyuan
; TITLE OF INVENTION: A RECOMBINANT VACCINE AGAINST FISH INFECTIOUS DISEASES
; FILE REFERENCE: Applied Research
; CURRENT APPLICATION NUMBER: US/09/196,161D
; CURRENT FILING DATE: 1998-11-20
; PRIOR APPLICATION NUMBER: 9803188-3
; PRIOR FILING DATE: 1998-09-28
; NUMBER OF SEQ ID NOS: 17
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 10
; LENGTH: 105
; TYPE: PRT
; ORGANISM: Ichthyophthirius multifiliis
US-09-196-161D-10

Query Match      23.2%; Score 544; DB 15; Length 105;
Best Local Similarity 96.2%; Pred. No. 9.1e-39;
Matches 101; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

QY 56 GAAQGEANGNPFANNAARGICVPCQINRVGVTNAGDLATLATOCSTQCPTGTALDDG 115
Db 1 GSAQGEANGNPFANNAARGICVPCQINRVGSGTNAGDLATLATOCSTQCPTGTALDDG 60

QY 116 VTDVFDRAACVCKPNFYNGSGPQGEAPGVQVFAAGAAAGV 160
Db 61 VTDVFDRAACVCKPNFYNGSGPQGEAPGLQVFAAGAAAGI 105

RESULT 11
US-09-497-967-9
; Sequence 9, Application US/09497967
; GENERAL INFORMATION:
; APPLICANT: Clark, Theodore G.
; APPLICANT: Dickerson, Jr., Harry W.
; APPLICANT: Lin, Tian-Long
; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
; FILE REFERENCE: 235.00170101
; CURRENT APPLICATION NUMBER: US/09/497,967
; CURRENT FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: 60/131,121
; PRIOR FILING DATE: 1999-04-27
; PRIOR APPLICATION NUMBER: 60/118,634
; PRIOR FILING DATE: 1999-02-04
; PRIOR APPLICATION NUMBER: 60/122,372
; PRIOR FILING DATE: 1999-03-02
; PRIOR APPLICATION NUMBER: 60/124,905
; PRIOR FILING DATE: 1999-03-17
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 9
; LENGTH: 89
; TYPE: PRT
; ORGANISM: Ichthyophthirius multifiliis
US-09-497-967-9

Query Match      20.3%; Score 475; DB 18; Length 89;
Best Local Similarity 100.0%; Pred. No. 6.9e-33;
Matches 89; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 106 CPTGTALDDGVTDVFDRAACVCKPNFYNGSGPQGEAPGVQVFAAGAAAGVAAVTS 165
Db 1 CPTGTALDDGVTDVFDRAACVCKPNFYNGSGPQGEAPGVQVFAAGAAAGVAAVTS 60

QY 166 QCVPCLNKNDSPATAGANLATOCSSNQ 194
Db 61 QCVPCLNKNDSPATAGANLATOCSSNQ 89

RESULT 12
US-09-497-967-10
; Sequence 10, Application US/09497967
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; GENERAL INFORMATION:
; APPLICANT: Clark, Theodore G.
; APPLICANT: Dickerson, Jr., Harry W.
; APPLICANT: Lin, Tian-Long
; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
; FILE REFERENCE: 235.00170101
; CURRENT APPLICATION NUMBER: US/09/497,967
; CURRENT FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: 60/131,121
; PRIOR FILING DATE: 1999-04-27
; PRIOR APPLICATION NUMBER: 60/118,634
; PRIOR FILING DATE: 1999-02-04
; PRIOR APPLICATION NUMBER: 60/122,372
; PRIOR FILING DATE: 1999-03-02
; PRIOR APPLICATION NUMBER: 60/124,905
; PRIOR FILING DATE: 1999-03-17
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 10
; LENGTH: 89
; TYPE: PRT
; ORGANISM: Ichthyophthirius multifiliis
US-09-497-967-10

Query Match      20.2%; Score 472; DB 18; Length 89;
Best Local Similarity 100.0%; Pred. No. 1.2e-32;
Matches 89; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 195 CPTGTALDDGVTDVFDRAACVCKPNFYNGSGPQGEAPGVQVFAAGAAAGVAAVTS 254
Db 1 CPTGTALDDGVTDVFDRAACVCKPNFYNGSGPQGEAPGVQVFAAGAAAGVAAVTS 60

QY 255 QCVPCLNKNDSPATAGANLATOCSTQ 283
Db 61 QCVPCLNKNDSPATAGANLATOCSTQ 89

RESULT 13
US-09-497-967-8
; Sequence 8, Application US/09497967
; GENERAL INFORMATION:
; APPLICANT: Clark, Theodore G.
; APPLICANT: Dickerson, Jr., Harry W.
; APPLICANT: Lin, Tian-Long
; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
; FILE REFERENCE: 235.00170101
; CURRENT APPLICATION NUMBER: US/09/497,967
; CURRENT FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: 60/131,121
; PRIOR FILING DATE: 1999-04-27
; PRIOR APPLICATION NUMBER: 60/118,634
; PRIOR FILING DATE: 1999-02-04
; PRIOR APPLICATION NUMBER: 60/122,372
; PRIOR FILING DATE: 1999-03-02
; PRIOR APPLICATION NUMBER: 60/124,905
; PRIOR FILING DATE: 1999-03-17
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 8
; LENGTH: 83
; TYPE: PRT
; ORGANISM: Ichthyophthirius multifiliis
US-09-497-967-8

Query Match      19.3%; Score 451; DB 18; Length 83;
Best Local Similarity 100.0%; Pred. No. 7.5e-31;
Matches 83; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 23 CPDGTQTQAGLTDVGAADLGTVCNCRPNFYNGSGPQGEAPGVQVFAAGAAAGVAAVTS 82
Db 1 CPDGTQTQAGLTDVGAADLGTVCNCRPNFYNGSGPQGEAPGVQVFAAGAAAGVAAVTS 60
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